

# CENTRE

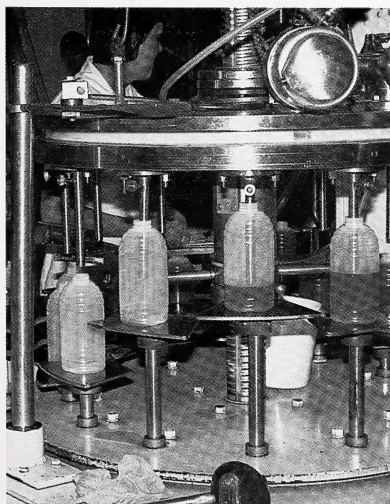
FOOD PROCESSING DEVELOPMENT CENTRE

## Company Focus

### Alberta Honey Producer's Cooperative

An Alberta product that enjoys worldwide attention for taste and quality is honey. Alberta honey, and Western Canadian honey in general, is known internationally for its high quality. Because the nectar comes mainly from the flowers of clover and canola, its texture is much finer, its taste sweeter and its color lighter than honey from anywhere else in the world.

BeeMaid Honey Ltd., a company owned by a co-operative of honey producers in British Columbia,



Packaging of liquid honey

Alberta, Saskatchewan and Manitoba, is Alberta's largest honey packager. On average 25 million pounds of honey is packaged and sold into both domestic and international markets. BeeMaid, the marketing arm of the co-operative, markets product in over 30 countries around the world including France, Germany, Saudi Arabia, the United States, Hong Kong and several in Asia.

Along with both pasteurized and unpasteurized, liquid and creamed honey, the BeeMaid plants in Edmonton and Winnipeg also produce lemon honey, cinnamon honey, honey mustards (hot & french style) and a new honey barbecue sauce. Product diversification is a mandate for the company. During the past year BeeMaid introduced a french style honey mustard and a honey barbecue sauce which was developed for BeeMaid at the Centre. Their goal is to introduce an average of one new product per year. In 1990, the co-operative invested \$75,000 in new equipment to produce this new value-added line of products.

The Honey Producers Cooperative maintains two processing plants. A new plant in Spruce Grove opened in 1993 and a similar plant operates in Winnipeg. The new 66,000 sq. ft.,

\$3.1 million Spruce Grove building is more efficient and will allow for increased production capacity. Part of the new plant was an existing bulk warehouse storage for raw product and the new part is all packaging, processing, shipping and receiving. Two plastics extruders were incorporated into the Alberta plant and the company is now blow moulding its own beehive bottles. The very familiar 500 gram beehive bottle is the number one seller in North America.

The "Western Wax Works", a division of Alberta Honey Producers Co-op Ltd., is currently under construction at the Spruce Grove plant. In 1992, technical research was conducted to develop new technology to refine bees wax and other natural waxes to meet pharmaceutical, cosmetic and food grade purity standards as defined by the relevant pharmacopoeias of the world. The "Wax Works" should be operational by mid-December 1994. It will displace some of the importation into Canada of highly refined bees wax and provide a "value-added" benefit to the beekeeping industry of Alberta and Western Canada.

Connie McPherson

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January 1995

**Alberta**  
AGRICULTURE, FOOD AND  
RURAL DEVELOPMENT



## Branch Head Message

### A year of changes

Since the last issue of this newsletter there have been many changes within Alberta Agriculture, Food and Rural Development. The Food Processing Development Centre has been part of and affected by these changes.

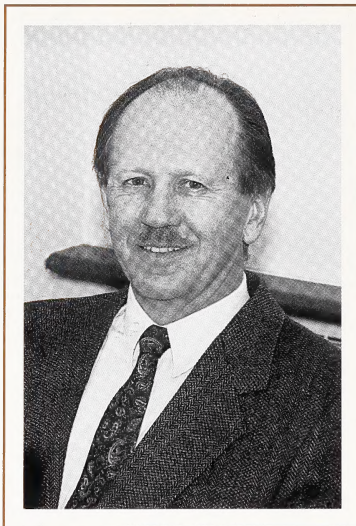
In response to the government's commitment to balance the budget by 1997, and the "Creating Tomorrow" public consultations, considerable restructuring has occurred within the Department. This led to the development of a three-year business plan which addresses the issues identified by "Creating Tomorrow" and reflects the reduced financial resources available to support department programs. Multi-disciplinary product teams were developed to promote better communications across branches and to

develop clear strategies and action plans that will assist the agri-food industry in its efforts to become more globally competitive while accessing new markets for value-added products manufactured from agriculture commodities.

The public consultations and team activities have placed an even greater emphasis on value-added and technology transfer for the agri-food sector. This coincides with the growing involvement of the food and beverage sector at the Centre. Over the past 12 months we have seen a doubling in the use of the pilot plant facilities and an increased demand on the time of our food scientists. Several new companies have recently developed new products, availed themselves of our interim processing facilities and have moved into new food processing establishments. Other companies are using the Centre to develop new product lines and produce sufficient product for test marketing, prior to the set up of new lines at their own plants. Seminars and equipment demonstrations have been held and well-attended by industry personnel.

In 1994, the value of factory shipments from Alberta Food and Beverage Processors exceeded \$5.2 billion. If the current activity in the industry is any indication, we can expect this figure to increase dramatically over the next three to five years. The Centre is well equipped and staffed to service this growing need and is anxious to play a supporting role during these exciting times.

Ron Pettitt



Ron Pettitt

## Sensory Tech

### New computer sensory capabilities at the Centre

Sensory evaluation techniques are being used more frequently by companies. They are used to gain information about products, relative to their competitor's products, and to assist in the development and launching of new products.

Traditional sensory studies using consumers provide information on preferences while those with trained panelists give detailed appearance, flavor and texture descriptions for products.

A new technique called 'free-choice' profiling can provide both preference



Taste panel with students



## Technology

and descriptive results. Consumers use their own vocabularies to describe competitors' products and to indicate which product(s) they prefer. A computerized, statistical programme called Generalised Procrustes Analysis can be used to analyse the data. The results indicate common words that consumers use to describe the product, why products are judged to be different, and which product(s) consumers prefer. Depending on the number of samples to be tested, these studies may be completed in one to two weeks.

The Centre provides training and/or facilities for both traditional and free-choice sensory evaluation services.

Susan Lutz



## Project Focus

### ***The Food Processing Development Centre, along with Beef Information Centre and Centennial Foods Introduce a New Snack Food***

Responding to the consumer's desire for new taste experiences and the trend for more ethnic foods, Mexican style food products are rapidly increasing in popularity. Along with this rise in popularity of ethnic flavors, the trend to "grazing", or meal snacking continues to be a strong force in new product development in the 1990s. The demand for finger foods continues to increase.

In an attempt to satisfy consumer requests, the staff of the Food Processing Development Centre decided to combine these two trends and create a Mexican style finger food. The result, after several months of bench-top development work, is the "Taco Nugget". Typical in size and shape to other nuggets, the "Taco Nugget" is a blend of lean Alberta beef, combined with special seasonings to give it that Mexican flare. This nugget is then sealed in a bright corn crumb coating and deep fried. The most unique feature of the product is the crumb, also developed at the Centre using extrusion technology. It is applied in the same manner as more traditional crumb, but when fried, it provides a rich corn flavor and the appearance and texture of a taco shell.

In August 1993, the Beef Information Centre sponsored the "Taco Nugget Team" at an International Centre for Agricultural Science and Technology (ICAST) Market Focus Workshop. This

workshop provided the vehicle to bring together all the necessary components of a research and development, production and marketing team. As a result of the workshop, Centennial Foods, with support from BIC, adopted the "Taco Nugget". Bench-top work continued at the Centre with personnel from Centennial Foods assisting. Condillo Foods developed a method of making the crumb in its own plant. Test runs of taco nuggets were conducted on the Centre's breading and batter line to refine the product for the process. Finally, test market samples were produced and shipped through Centennial's distribution network across Canada. The product was introduced to both the food service and retail markets.

Enough interest was shown in the nugget to begin production, using the Centre's breading and batter line, in February 1994. Currently, the "Taco Nugget" is selling across Canada and the United States, in both the food service (10 lb box) and retail (2 lb box) markets.

Future plans for the nugget include a new one pound retail box size. Centennial Foods has purchased their own breading and batter line and intends to expand production to an entire line of breaded and battered products. Tentative plans have production of the nugget at Centennial's Calgary plant to begin February 1, 1995. The start up of this production line will create eight to 12 new jobs and provide new value-added products to the industry.

Robert Gibson

## ***Staff Focus***

### ***Jacqueline Gelfand***

Jacqueline Gelfand is a food scientist at the Food Processing Development Centre, specializing in dairy projects. She received her B.Sc. in food engineering from the University of Bogota, Colombia and is presently enrolled part time at the University of Alberta in a MSc. program in Dairy Science.

Jacqueline is responsible for the identification and evaluation of industrial opportunities in the dairy industry. This includes the development of new products as well as the application/demonstration of new technology utilizing specialized equipment available at the Centre. Ultrafiltration and the functional properties of dairy ingredients are two areas of particular interest to Jacqueline.

In addition to her primary interests, she has also extensive experience with jams and jellies. Jacqueline provides expertise to many clients interested in scaling up recipes from cottage industry to semi-commercial production. This includes the sourcing of commercial ingredients, packaging information and demonstration of the function of various production/processing equipment and instruments applied in quality control.

The Centre's library and computerized information retrieval services, using global data bases related to food research, food product development and marketing, are also co-ordinated by Jacqueline.



*Jacqueline Gelfand*

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